Jacobi (A.)

CONGENITAL

LIPOMA.

BY

A. JACOBI, M. D.,

Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York.

Reprinted from the ARCHIVES OF PEDIATRICS, *Vol. I., No. II., February*, 1884.

JERSEY CITY:

319 York Street.

CONGENITAL

LIPOMA.

BY

A. JACOBI, M. D.,

Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York.

Reprinted from the ARCHIVES OF PEDIATRICS, *Vol. I., No. II., February*, 1884.

JERSEY CITY:

319 York Street.

CONGENITAL LIPOMA.

BY

A. JACOBI, M. D.,

Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York.

According to E. Lancereaux (Traité d' anatomi path I., p. 341) lipoma is developed at every age ; it has been observed in old people and in young infants. Even congenital lipoma has been known to occur. It has been met with by a hereditary disease ; thus Murchison has the cases of a father and two daughters with fatty tumors on almost corresponding parts.

This is all he has to say on the subject, nor have the other text books on pathological anatomy more information to convey. The following pages will give a resumé of the facts recorded, with a few cases of my own, and such additional remarks as appear indicated by the interest the subject seems to command.

General obesity, that is hypertrophy of the adipose tissue under the whole of the surface and in the interior of the body will be rigidly excluded from my consideration. Thus the cases of infants and children weighing from fifty to a hundred pounds or more in very early years form no part of this paper, which has to deal with local changes rather than with the results of universal malnutrition resulting in universal adiposity. Perhaps one of the most interesting cases of the kind is that of a fetus of six months reported by Deutschberg (de tumoribus nonnullis congenitis. Diss. Vratislav, 1822.)

Local hypertrophy of the adipose tissue will occur sometimes to such an extent as to increase the size of a limb enormously. The cases of Busch and Rose will be noted below. The *hand* of a boy of sixteen years, described by Henderson in his Notes on Surgical Practice in Shanghai (Edinb. Jour., Aug., 1877), weighed eight pounds. The extremities are often increased both in length and circumference. In these cases the development of the bones is liable to correspond with that of the adipose tissue; thus in Little's case of the *right lower extremity* of a child of three years (Trans. Path. Soc. London, 1867, XVII., p. 434). In the cases of Juengken (or Ideler, Diss. inaug., Berlin, 1855), Friedberg and Wagner (Schmidt's Jahrb., III., Suppl. 1842, p. 66), and Fischer (D. Zeitsch f. Chir., XII., p. 16, 1879), lipomata complicated the general hypertrophy of a whole extremity. Of a similar nature is the case of a girl of six years reported by Burow (D. Klin., 1864), with universal hypertrophy of the *second and third toes* and corresponding metatarsal bones, and that of a man of thirty-two years, reported by Wulff (Petersb. Med. Z., 1861, p. 281). The *volar part* of the hand, as far as it corresponded with the three first fingers, was hypertrophied from birth. Independent increase had commenced but recently.

With this exuberant growth other anomalies are apt to be combined; thus Fischer observed a supernumerary nail though without a phalanx of its own. The swelling is mostly of irregular shape, is not infrequently found at a

great distance from the heart. In many cases impeded circulation may bring on or aggravate the morbid process. The position of the limbs in the uterus may influence both arterial and venous supply. The superabundance of the latter is apt to increase the formation of œdematous fat, as for instance it does to an excessive degree in acardiac (acephalous) monsters the whole circulation of which is venous. On the other hand in a more advanced stage of fetal develpment, or in the infant the preponderance of venous circulation have the effect of diminishing the size; for parts of the body, particularly extremities, inflicted with extensive venous angioma lose in circumference, strength and power.

Congenital hypertrophy, with the development of a great deal of fat, is mainly found in the fingers, the volar side of which is liable to carry a large quantity. The presence or absence of fat in them or elsewhere, depends on the time in which the congenital hypertrophy started. In the first half of intrauterine life no fat is formed; thus local hypertrophies dating from that time are complicated with gelatinous or myxomatous enlargement of the inner layers of the skin; such, however, as originated in the second half of fetal life will be found complicated with an abnormal concomitant development of fat.

The extremities will not be the only parts to exhibit such anomalies. The skin of the occiput and back, the abdomen, the upper extremities, besides the calves of the legs and the dorsal and plantar surfaces of the foot are the seats of such deposits. What Virchow called soft elephantiasis consists of the latter anomaly, joined to a copious deposit of adipose tissue. On the head lipomata are found but very rarely. Both Rokitansky and Virchow agree on this point, and also in the cases of that fact. They look for the occurrence of lipoma in soft adipose tissue, and do not expect to find it in the dense connective and elastic tissue of the scalp. Therefore the case of lipoma fibrosam in that locality described by Dr. Carl Fieber (D. Zeitsch f. Chir. XII. p. 112, 1879,) is a rare exception from the rule. The infant of the woman

from whom Briolle, whose case will be referred to later, extirpated an immense lipoma, is reported to have had a tumor on the head; but its nature, as the child had died long ago, was not ascertained: as a rule it must be taken for granted that lipoma will form under such circumstances, and in such localities where fat is normally deposited in disproportionally large masses. It has to be taken as the (pathological) excess of normal (physiological) growth. Thus in the adult, lipoma will mostly be found on the chest, shoulders, abdomen, and congenitally it will appear where physiological growth of fat is rapid. After having been developed, its increase is generally slow; as a rule slower in the adult with an acquired, than in the infant with a congenital tumor. Nor is this the only difference between the nature of lipoma occurring in these different ages. From the cases I am about to enumerate it will appear that contrary to what we know of the capsulated form of adult lipoma, the congenital variety is apt to be diffuse, and not capsulated.

My own cases are as follows:

I. Mary C——, aged three years; admitted May 28, 1879, to Mount Sinai Hospital.

Family history good. A swelling on both sides of the vertebral column in the *lumbar region* was noticed immediately after birth. It increased in size slowly up to six months ago, when it began to grow rapidiy. It was not painful; she was playful; and her appetite and general appearance were good, although she was delicate. She had two brothers and two sisters in good health.

When admitted, there was a swelling in the lumbar region, extending five inches or more to the right and to the left of the lumbar vertebral column. It was soft, elastic and lobulated, and from three to four inches in its vertical diameter. It was not painful on pressure, and the skin over it was not changed with the exception that a few blood-vessels were enlarged. There was a smaller swelling on the (left) gluteal region and another on a level with the scapula; the latter being the smaller

of the two and having a diameter of two or three inches. Both of the smaller swellings felt softer than the one situated in the lumbar region; still they were lobulated, and to a certain extent, elastic. There was no doubt that all these tumors were lipomata. On the *third* of June a semicircular incision about ten inches in length, was made over the main tumor, with its concavity downwards. No capsule was found. Large masses of fat between the skin and the vertebral column were removed; still it was not possible to dissect deep enough to remove all the fat present; the operation was done under Lister, and a Lister dressing was applied. The condition of the patient after the operation was fair. There was a great deal of oozing from the wound in the night, and the dressing was removed and a new one applied.

On the *fourth* of June there was but little discharge, no pain; but the pulse was 150, respiration 30, and temperature 101¼° F.

June 6th. The temperature and respiration remained unchanged but the pulse had fallen to 116. The patient was quiet, had slept, and there was almost no discharge.

June 8th. Pulse, respiration and temperature quite normal; there was an itching papular eruption over the whole of the body and the extremities.

June 9th. The general condition of the patient was the same as on the eighth, with the exception that during the night she had four dysenteric stools, and for those opium and bismuth were administered.

June 10th. Eight passages consisting mostly of mucus. At the same time the wound looked badly and began to slough.

June 12th. Her stools were slightly dysenteric in character, and the wound looked no better.

June 13th. The patient was pale and emaciated. Temperature 98¾° F. At five P. M. her pulse was 132, respiration 36, and temperature 102½° F.

June 14th. Two dysenteric passages. A large amount of suppuration from the wound and of an offensive odor.

The wound has sloughed and began to ooze; a hair-lip pin was introduced to hold its edges together.

June 15th. Temperature but slightly elevated and pulse better, and the wound also presented a more favorable appearance. Only one passage from the bowels during the last twenty-four hours. During all this time the wound had been dressed daily under Lister.

June 17th. Considerable sloughing at the edges of the wound. A thorough application of a twenty per cent. solution of carbolic acid was made, and was repeated a number of times. The child was fed well, took quinine regularly, and was stimulated freely with alcohol and camphor, but she grew paler, emaciated considerably, and the wound continued to slough. There was a great deal of discharge, which always had an offensive odor.

Several times, hair-lip needles were applied for the purpose of reducing the gaping of the wound. Though the dysentery was relieved at about this time, there was slight erysipelatous inflammation of the edges of the wound.

There was never any fever, but emaciation continued, anemia increased, and the patient died on the 2d of July.

II. A boy of three years was sent by Dr. I. Oberndorfer from the West Side German Dispensary. He had in and below his *left groin* a swelling of irregular shape, apparently originating in the femoral ring. It measured from three to four inches in the axis of the femur, and from two to two and a half inches transversely. Its outlines were not at all smooth, even and regular, but irregular and nodulated, as was also its surface. The blood vessels of the surface, which was quite normal, were but slightly enlarged; pressure gave no pain, and resulted in no reduction of size. The tumor had been observed through more than two years, and had grown larger, but never changed its location. Removal was proposed, but at that time refused.

III. A lipoma, probably congenital, I observed on the *back* of a man of fifty-five.

This patient of mine, then thirty-five or forty years of

age, mentioned in the course of conversation some twenty years ago the presence of a tumor on his back. I found it located over the ninth and tenth dorsal vertabrae, of the size of a walnut, not changed in color, not painful, indolent on pressure, not reducible in size. The blood-vessels in the neigborhood were but slightly enlarged. It appeared nodulated, soft, but offered a certain resistance. He was certain that it had been in the same condition as long as he could remember, and had been told that he had never been without it. I advised an operation only in case the tumor would ever commence to grow. It never did, however, and twenty years afterward, when he died, it was in exactly the same condition and of the same size.

IV. A female child, a patient of Dr. Moêller, was born on January 26th, 1882, and died April 4th, 1883. She was the fifth child of the mother, and weighed 13½ pounds when born. She cried and drank normally, lips rather cyanotic, but not the nails, and the general surface a trifle livid. A cephalhaematoma on the right parietal, and one on right occipital, bones.

Left foot large, first and second toes normal, third and fourth webbed (bones separate) and of three times their normal size; they turn to the right, so that there is quite an interstice between the fourth and fifth, the latter of which seems as if it were joined laterally to the metatarsal bone. It is larger than the big toe. The left foot has a circumference of 13, a length of 9 centimeters, the right 9, and 7. The circumference of the left calf is smaller, however, than that of the right, which is flabby and soft. Otherwise the right lower extremity is normal up to the knee; the knee joint has but a limited voluntary motion, the normal backward motion of the leg (flexion) is impeded, but anteriorly the knee bends so as to allow the toes to touch the abdomen. No patella discovered. On the right thigh a large, soft, lobulated tumor, not compressible, nearly surrounds the limb, with the exception of the posterior aspect. The circumference of the right thigh is 24, that of the left 16 centime-

ters. The left lumbo-dorsal region is swelled, soft, adipose, not compressible; the swelling is marked in the left renal region, somewhat nodular, and extends to the right of the median dorsal line. The whole right side of the body, from the abdomen and renal region upwards to the axillary region, is occupied by a diffuse, not quite soft, somewhat nodular, very extensive mass, the elevation of which over its neighborhood is estimated at from one to four centimeters. The surface has the normal color, with the exception of some large spots which are the seats of subcutaneous hemorrhages of a nature similar to what is noticed on the patient's palate. The boundary lines of the diffuse swelling are sometimes straight, sometimes curved. There are no dilated veins on the surface, but from about the tenth rib upwards there is an almost square space (centim. 14 x 14) which is more or less uniformly brown, succulent, and changing under the pressure of the finger, of teleangiectatic nature. Its posterior boundary line is straight, the anterior curved.

The case, then, was one of gigantic growth of the left foot, localized lipoma of the *right thigh*, diffuse lipoma of most of the surface of *abdomen and chest*, and teleangiectasia of the right side of thorax, mostly anteriorly.

In the course of time other symptoms showed themselves. On September 2d the head was found to be oblique, flattened to the right and posteriorly, left half of head and face longer than right, left ear is an inch back of the line of the right, left eye larger than right, convergent strabismus and convulsions of the face now and then, intellectual functions rather dull, occasional convulsions, now and then universal, sometimes about the face only.

In the last few months of life large subcutaneous abscesses developed and discharged considerably. The autopsy corroborated the diagnosis and revealed besides hydrocephalus and perinephritic abscess on the left side.

V.—My most interesting case is, perhaps, the following:

A case of lipoma of the *lumbar region, complicated with spina bifida,* came under my observation many years ago. It has been described by Dr. B. F. Dawson in the Amer. Jour. Obst. (Febr., 1871), and is the same case referred to by me in the same journal (XII., 1879, p. 755), and again by Dr. Dawson in the N. Y. Med. Journal (1883, p. 613). According to Dr. Dawson's description, "a tumor the size of a large orange was seen over the lower lumbar region. Its appearance was somewhat flattened and very slightly pediculated, and its color was uniform with the surrounding skin, with the exception of an irregular spot in the center about an inch in diameter, of a mottled color, which was evidently due to friction of the clothing, etc. The exact location of the base of the tumor was found to be over the two last lumbar and the first sacral vertebræ, but not in the median line, two-thirds at least of the tumor being to the right of it. To the feel the tumor was uniformly tense and unyielding, though not hard, and by grasping it with the fingers considerable mobility was obtainable. Continued and very firm pressure failed to diminish its calibre, and produced no marked impression on the appearance or behavior of the child."

Under the supposition that the case was one of uncomplicated lipoma, its removal was undertaken. It was found to be diffuse, one and three-quarter inches in thickness, not capsulated, and covering a small sac of spina bifida, "containing not more than half an ounce of fluid, of the size of a small thimble, just admitting the little finger to the depth of three-fourths of an inch."

The literature of our subject is not very extensive.

Leclerc de Buffon, (hist. nat. gén. et part. etc. rédigée par C. S. Sonnini, Vol. XX.,) has the case of a girl of three years, who had on *abdomen, face and extremities* a large number of tumors, yellowish, covered with hair,

raised above the level of the skin. All over the back down to the lumbar region, the tumors were larger and numerous. Probably this is the same case seen, when a few years older, by Lavater and Wünsch.

Thomas Bartholinus reports the case of a girl whose *whole body* was covered with villous yellowish brown spots and large cutaneous excrescences. He expresses the conviction that her mother lived in concubinage with a monkey.

Walther saw, in the General Hospital of Vienna, in 1800, a woman covered *all over* with lipomata. They were small, bottle-shaped, and mostly pediculated. They were congenital.

Arlt (Lehrb. III., p. 376,) describes a congenital lipoma of the *left upper eyelid* complicated with congenital coloboma. It consisted of two parts, was soft, elastic and encysted. The two were located in the episcleral tissue.

Congenital lipoma of the *tongue* has been observed by Bastien (Bull. de la société anat. de Paris, Nov. 1854.) The patient was a man of 21 years, who had a tumor on the right side of his *tongue* since early infancy. It had finally reached the size of a pigeon's egg, then remained stationary and contained beside fat, cartilage and bone.

Also by Lambl (Beob. u. Studien aus dem Franz Joseph Kind. Spit, p. 181.) The tumor extended all along the *tongue* so that its origin could not be appreciated, On its surface it was dermoid, with hair and tallow follicles, and consisted of fat, cellular tissue, and blood-vessels.

J. Arnold (Virch. Arch. 1870. vol. 50, p. 482.) reports a case of congenital compound lipoma of the *tongue and pharynx* perforating into the *cranial cavity*. It had a dermoid surface and contained particles of cartilage and masses of capillaries, detached during its developement muscular fibres and layers of the tongue, closed the excretory duct of the sublingual gland, thereby caused the occurrence of cavities, fistulae and pouches, and atrophied the glandular structure. Such at least is what the author claims; though the suspicion that the case is one of epignathus, cannot be entirely suppressed.

F. J. Voigtel describes (Meckel's Hand-book of Path. Anat. Vol. I., p. 86,) a congenital lipoma of the *dorsal and lumbar region.* The mass grew to the twentieth year and had at that time a circumference of thirty-six inches, and a weight of from three to four pounds. It consisted of several parts, all of which were capsulated.

Ph. von Walther's celebrated case of "naevus lipomatodes "is contained in his monograph (über d. angeb. Fetthautgeschwülste u. and Bildungsfehler, Landshut, 1814.) The skin from the *third dorsal vertebra all over the back,* down to the *nates, over thighs, abdomen* and upwards to the mammæ was of a brownish color, as frequently in naevi and covered with hair. On this surface there were twenty-four lipomata, large and small; The largest was located on *sacrum right hip and thigh.* It was 19 inches in circumference, 18 inches long, 16 inches in its greatest breadth, and had a weight of from 16 to 18 pounds. Such it was when the girl was nineteen years old. When she was seven, it was not larger than a fist. Several operations were performed to reduce the size of the patient to more comfortable limits. When they had proved successful the girl, then but fifty-one inches high, but otherwise well built, grew and developed more normally.

C. Vogt (Einige seltene Congenitale Lipome, Diss. Berlin, 1876,) publishes a few cases of congenital lipoma observed in the surgical clinic of the university of Berlin. One case was that of a girl a year old, who, according to the report of the mother, had been perfectly well up to half a year before. At that time, without any perceptible cause, there became visible in the *right mammary region* a movable tumor. The mother was certain that she had not noticed it at birth. For half a year the tumor had grown rapidly, and the patient was admitted on the 7th of July, 1876. The tumor covered almost all of the right anterior and a portion of the left side of the thorax. It commenced an inch and a half below the right clavicle, extended downward to the base of the ensiform process, and reached beyond the left margin of the sternum for about an inch and a half. It was three centimeters

high, twelve centimeters wide, and nine long, and a circumference of about fifteen and a half centimeters. The surface exhibited a large number of dilated veins, and could be raised from the tumor with facility. The tumor was without pain, of soft consistence, and lobulated. Percussion and auscultation showed that the heart and left lung were pressed sideways and back. Thus the diagnosis of a tumor was made, located in the mediastinal cavity. It could not be stated, however, whether the two tumors, one outside and the other inside, were connected with each other. The external tumor growing very fast, extirpation was proceeded with on the 12th of July.

It was found that the external tumor could not be removed entire, but that there was a process at its posterior surface which entered the third intercostal space about one centimeter from the right edge of the sternum. This process evidently was a pedicle protuding from the *mediastinal cavity* Thus the substernal part of the tumor could not be extirpated, and the external portion only was removed. The child died eight days afterward of dyspnea and erysipelas. The mediastinal tumor was found to be spherical, of the size of the fist, and surrounded by a very firm membrane, consisting of cellular tissue. Upwards and to the right there were two prominences of the size of a cherry. The tumor filled the whole of the anterior mediastinal space, was ten centimeters in length and extended from the manubrium sterni to the ensiform process. Its thickness was eight and a half centimeters, its width eleven. The case is plainly one that originated in intra-uterine life. It was observed only when the substernal portion found an outlet through an intercostal space. The large volume of the tumor and the generally slow growth of lipoma, militate against the assumption that it could be extra-uterine.

Another case reported by C. Vogt, is one in which the tumor was attached to the *common jugular vein.* A male child, from Cincinnati, healthy, vigorous, normal, showed immediately after birth an anomaly resembling a naevus

on the neck. It grew very fast, and developed into a tumor. It was examined first on the 12th of June, 1865; on that day the anterior portion of the neck was covered with a tumor resembling a large goitre; it was of the size of the fist, extended from the left acromio-clavicular articulation to the right side of the trachea, thereby covering the trachea, larynx and jugular, and the whole of the part between the lower jaw and the clavicle. A month afterward it was extirpated and the lipoma was found to be located on the wall of the common jugular vein, from which it had originated.

Another lipoma reported by him is that which was extirpated from the *cervical regions* of a boy of twelve years. He had a small tumor in that neighborhood when born; it grew very slowly but constantly, and had reached the size of the fist when he was admitted; it was painless, soft, but little movable. The diagnosis was verified by the result of the operation.

When I was a student in the University of Bonn, Prof. Wutzer operated on a tumor located on the *neck of* a girl four and a half years old. The report, by C. O. Weber, is found in Müller's Archiv., 1851. It was a mixture of teleangiectasia, lipoma and fibroma.

Dr. C. Hilton Fagge (Pathol. Trans. 1874, Vol. XXV., p. 268) reports fatty tumors from the posterior *triangle of the neck*, (and a goitrous thyroid body) from a case of sporadic cretinism. In the upper part of the right lobe of the thyroid body was a rounded tumor the size of a walnut, lying deeply beneath the sterno-thyroid muscle. The tumors outside the sterno-thyroid muscle were found to be soft, well-defined masses, looking like fat, but distinctly differing in color from the subcutaneous fat in their neighborhood. For whereas the fat generally was of a suety whitish-yellow character, these tumors were more of a pinkish hue. On the left side the swelling over-lapped the clavicle; on the right side it did not appear to do so, but there was an accessory mass the size of an almond, projecting forward between two distinct portions of the sterno-mastoid muscle. Below the clavi-

cle on each side there were somewhat similar masses lying beneath the pectoralis major, between it and the pectoralis minor. These differed less in appearance from the subcutaneous fat. On the right side the mass in question sent a smooth well-defined process forwards between the fasciculi of the pectoralis major.

This case is one of four of sporadic cretinism related by the same author in Vol. LIV. of the Med. Chir. Trans. In each of these fatty tumors were found, either large or small, goitre being present or absent, in the *posterior triangle of the neck.* Their exterior he considers the only constant distinction between sporadic and endemic cretinism.

R. W. Parker (Obst. Jour. Gr. Brit. and Ireland. vol. VIII, p. 659.) removed a fatty tumor from the *neck* of a child. It had no capsule at all, was directly continuous with the subcutaneous fat, of unusually white color and delicate consistency. It grew but slowly, as this class of tumors always will do.

P. Vogt (Die Chirurg. Krankh. der oberen Exhb. 1881. p. 133, in Billroth u. Lücke Deutsche hiré. fasc. 64.) says that the diffuse lipomatosis of the *vola manus* is not the only form of lipoma found in that neighborhood. There are genuine lipomata to be found circumscribed and with slow growth. Where they were congenital, or at least observed during infancy or childhood, they would cease to grow when the development of the body was completed. P. Vogt saw two cases of congenital lipoma, rather diffuse, on the *thumb* without any simultaneous hypertrophy of other tissues. Küster operated several times upon a boy four years of age, for a lipoma extending from the under side of the *fifth finger* to the *elbow,* until he finally succeeded in extirpating it. Trélat and Boinet met each with a lypoma in the *vola manus,* which were taken for hygroma of a tendon. In some cases there was a sense of fluctuation, even crepitation. Volkmann met with one which was transparent. Ranke removed two, one from the vola of the *fourth finger,* one from the *thumb.*

F. A. von Ammon (Die Angeb. Chir. Krankh. d. Menschen, Berlin, 1842, p. 136) describes, and draws on plate XXXII. of his atlas, a lipoma complicated with naevus on the *arm* of a child. It was extirpated. The cutis was in part degenerated, in part uneven, with solid prominences, some of which were of almost cartilaginous consistency. They contained fat and were covered with hair. A similar tumor (p. 135, the same plate) was removed from the *cheek* of a young man.

Aschoff (Monatssch, f. Geb. XXX., 1867, p. 199) described the case of a boy of three years with a lipoma of the size of the fist under the *right axilla*. The *fifth finger* on the right hand showed the following anomalies: it was very big and long, and abnormally movable. Its extension was perfectly free, perhaps too much so. Flexion, however, was impossible, rendered so by thick deposits of fat of the size of the finger. The anterior portion of finger exhibited such an amount of fat that it surpassed all the rest in length. There were no such abnormal deposits of fat on the dorsum, but they extended up to the elbow on the volar and ulnar side. All these anomalies were congenital.

W. Busch, (Arch. f. Klin. Chir. VIII. 1865, p. 174,) reports the case of a girl of twelve years, with hypertrophy of the *webbed second and third toes* of the right foot and lipomatous degeneration of the adipose tissue. On both the plantar and dorsal side the latter was an inch in thickness.

He also reports the case of a man of twenty whose foot had to be amputated because of hypertrophy, (mostly osseous) of the *first three toes* of the left foot. The lipoma was both diffuse and localised. Fat was in close connection with the skin. The latter was thin in several places, perhaps atrophied by the pressure from inside; in others it was thicker, and the fat imbedded in fibrous masses. The softer lipomata in the interior forced their way between the bones. These were isolated lipomata of the *dorsum pedis* surrounded by a network of largely dilated veins.

In both of these cases the lipomatous degeneration formed part of the general gigantic growth. Lipomata when congenital, may occur on both the exterior and flexor side of the extremities, but favor the latter. This is contrary to what is observed in advanced life, when lipomata never originate on the volar aspect of the hand or the plantar side of the foot.

L. Rose describes (Mon. f. Geb. XXX., 1879, p. 342) the body of a child that died when a year old, with remarkable enlargement of the *two lower extremities.* The increase in size was due to both a lipomatous and a fibromatous degeneration, together with tangiectatic anomalies. The two former excluded each other; they were found in different localities. Most of the lipomatous degeneration was found to be on the flexor side and diffuse to such a degree that, microscopically, it could be compared with the soft forms of elephantiasis.

Of 73 cases of lipoma observed by Billroth in the clinical hospitals of Zurich and Vienna, one was congenital. It was located on the *dorsal side* of the *foot* of a male child (Th. Billroth Chirurg. Klinik., etc., Berlin, 1879, p. 581). Two other observations from Billroth's clinic were published by Wittelshoefer (Arch. f. Klin. Chirurg., XXVI., p. 57). Kessler and Annandale have similar cases. S. C. Busey (Amer. Jour. Obst. Feb., 77) has a number of very interesting observations belonging to our subject in his admirable essay on "Congenital Occlusion and Dilatation of Lymph Channels." The whole literature of this special subject of hypertrophy of the extremities is collected by F. Ahlfeld (Die Missbildungen des Mensohen, Leipzig, 1880, p. 139.)

The fourth case of C. Vogt's was that of a boy of three years, who on the 11th of May, 1876, exhibited a spherical, not lobulated, tumor of the size of a cherry on the dorsum of the second phalanx of the *index finger.* It had its seat in the subcutaneous cellular tissue, and was easy to extirpate. A lipoma of the *sole of the foot* has been related by Chevallier (Soc. Anat. Bord. II.) and a *congenital calcified lipoma* by L. Briolle (Gaz. Hop. Jan. 23, 1883.)

He extirpated it from the gluteal region of a woman of thirty-five years, October 19th, 1882. When she was born there was a small tumor in the median line of the sacrum. It was believed to be a spina bifida until it grew and exhibited no other symptoms of that congenital anomaly. In 1882 the tumor extended 47 centimeters from the left spina anterior superior over the left and right gluteal regions. Its height and depth were 25 centimeters. The surface was normal, a few dilated veins were observed, but the most remarkable part of the tumor were three distinct masses of evidently osseous nature. It weighed 5540 grammes; when removed it was found that there was no capsule, no cavity, no anatomical complications with the exception of three cretaceous masses which while forming one-quarter of the volume, amounted to three-fourths of the weight of the whole mass.

Ideler (De lipomatibus congenitis adj. casus sing. descriptione. Diss. Berlin, 1855), reports the case of a boy of twelve years, who exhibited a large lipoma in the gluteal region and several small ones on the left leg. Besides there were immense deposits of fat on both feet, mostly in the left plantar and dorsal regions. On both feet the three middle toes were webbed. All these anomalies had been observed at birth.

Henry J. Butlin (Pathol. Trans. 1877, vol. XXVIII. p. 221) removed a fatty tumor containing striated muscular fibres, from a child aged seven years. It had been first noticed when the child was a year old—about the time she began to walk. Its growth for several years had been slow, but during the last few months its increase in size had been more rapid. It occupied the upper and back part of the *right leg*, a little below the knee, was circumscribed and enclosed in a thick capsule, passed between the tibia and fibula, pressing them apart and thrusting the interosseous membrane in front of it. It lay in a deep layer of muscles some of which were removed here and there with the tumor. The fact that there were striated muscular fibres in the tumor, the facility of overlooking

the tumor when the infant was young and did not attempt to walk, its slow growth in the first few years, its location on the flexor side of the limb, are as many proofs for its having been congenital.

Mr. Athol Johnson has recorded a case of fatty tumor growing congenitally out of the *sacral canal* (Trans. Path. Society, Vol. VIII. p. 16–28.)

Mr. Gay has related a case of congenital fatty tumor in the *sole of the foot* in which part of the foot was amputated under the belief that the neoplasm was malignant. (Path. Trans. XIV. p. 243.)

Th. Holmes, (Surg. Treatment of the Dis. of Inf. and Childhood, London, 1868, p. 31,) reports the case of fatty tumor of the *neck* of very large size passing into the *axilla* and lying in close apposition to the *sublavian vessels* in a girl of ten years: it is true the tumor had not been noticed by the parents until the chiid was ten months old. He also has the case of a fibro-fatty tumor of the neck attached to the spine in a male infant of three years, of uncertain duration. In this case also the mother asserted it was not congenital. (l. c. chap. XXI.)

Simon Duplay (Arch. Gén. 6, Sér. XII., p. 723, 1868) refers to a lipoma in the *coccygeal region.* It is of very rare occurrence. It is attached to the end of the coccyx or to its anterior surface. Besides, tail-like neoplasms are found in this neighborhood, either osseous or soft. They are at the lower point of the bone; the former are supplementary vertebræ, the latter consist of fat.

Of a similar nature appears to have been the case of Faber's mentioned by Ammon (l. c. p. 46).

Suttina removed a lipoma 330 grammes in weight, from the *lumbo-sacral region* of a girl twenty months old. It was of the size of a bean, when it was first observed, the infant being then two months of age. Its centre was in the median line at the juncture of the lumbar and sacral vertebrae. It sloped in the direction of the right hip, was very soft, nodulated and movable, and easily raised,

and grew very fast, contrary to what is generally noticed about a lipoma.

The collection of cases extending over nearly a century proves the rare occurrence of congenital lipoma. Every additional case must be considered welcome. It appears that the number of those which have come to my own notice is unusual in the experience of an individual observer.

What I emphasized in my introductory remarks appears to be confirmed by the cases as far as reviewed. Few of them were capsulated, most of them diffuse. Some of the patients had both diffuse and localized and capsulated lipomata. Many were uncomplicated; some were complicated with teleangiectasia, either superficial or deep-seated, or with dermoid degeneration, or fibroma, or the formation of bone or cartilage, or calcification. The most interesting and dangerous complication was that with spina bifida—in my case.

The shape of congenital lipoma is frequently irregular, not spheroid as it is in the adult. This difference is the result of its uncapsulated, diffuse nature. Processes and protuberances are not infrequent, and apt to interfere with complete extirpation.

Its locality varies. Cases have been found all over the body. There is but a single case of lipoma of the head, but a goodly array of those on the back and particularly the lumbar and gluteal regions. Many are found on the extremities; the hands, and still more the feet yield the largest number. Few of these however are uncomplicated; very few of them but are found on the palmar or plantar side, where the acquired lipoma of advanced age is not found.